

**AMENDMENTS TO THE DRAWINGS**

The attached sheet(s) of drawings includes changes to Figure 2 to clarify and enhance its readability.

Attachment:      Replacement Sheet 2

### **REMARKS**

Applicants have carefully reviewed the Office Action mailed February 11, 2009, and thank Examiner Porter for his detailed review of the pending claims. In the Office Action, pending Claims 1 - 40 were rejected. In this Response, Claims 1, 16, 21, 24, 29, 39, and 40 are amended without prejudice and without disclaimer of subject matter. New Claims 41 and 42 are added. Support for the amendments and new claims is found in the specification. No new claims have been added, and no new matter has been introduced. Thus, Claims 1-42 are pending.

At least for the reasons set forth below, Applicants respectfully traverse the rejections. Further, Applicants believe that there are also reasons other than those set forth below why the pending claims are patentable, and reserves the right to set forth those reasons, and to argue for the patentability of claims not explicitly addressed herein, in future papers. Applicants respectfully request reconsideration of the present application in view of the above amendments and the following remarks.

In view of the following arguments, any pending claims are believed to be in condition for allowance. Therefore, this Response is believed to be a complete response to the Office Action. However, Applicants reserve the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of claims not explicitly addressed herein, in future papers.<sup>1</sup>

Amendment of the claims as indicated is not an acknowledgement or admission that Applicants believe that they are somehow not entitled to broader protection and are made without prejudice or disclaimer. The amendment has been made solely to facilitate allowance of the present application. Applicants reserve the right to continue prosecution in one or more later filings.

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<sup>1</sup> As Applicants' remarks with respect to the Examiner's rejections are sufficient to overcome these rejections, Applicants' silence as to assertions by the Examiner in the Office Action or certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art, motivation to combine references, assertions as to dependent claims, etc.) is not a concession by Applicants that such assertions are accurate or such requirements have been met, and Applicants reserve the right to analyze and dispute such assertions/requirements in the future.

### **Drawings**

The Examiner required new corrected drawings in compliance with 37 CFR 1.121(d) due to the Examiner's view that Figure 2 was insufficient quality. The requirement and objection are hereby traversed. A Replacement Sheet 2 is enclosed herewith that reflects Figure 2 as originally filed as part of the priority PCT application. No new matter is added. Withdrawal of the objection to Figure 2 is respectfully requested.

The Examiner also objected to the drawings pursuant to 37 CFR 1.83(a) because in the Examiner's view, the wireless connection from the current stimulator to at least one electrode as claimed in Claims 20 and 33 must be shown, or the feature canceled from the claims. The objection is hereby traversed. Applicants respectfully respond that Claims 20 and 33 are addressed to the wireless transmission of a stimulation sequence from the current stimulator to at least one stimulating electrode, and that by its nature such wireless transmission is not visible and cannot be shown on a drawing. In addition, Applicants submit that the amendment to the Specification set out in response to the Examiner's rejection under 35 USC Section 101, including the optional omission of wire 17, is sufficient to allow related embodiments to be understood and practiced by those of ordinary skill in the art. For at least the reasons, Applicants respectfully request that the objection under 37 CFR 1.83(a) be withdrawn. Applicants reserve the right to respond further with respect to this objection in the event it is not withdrawn or their response is otherwise found by the Examiner not to meet the objection.

### **Specification**

The Examiner objected to the Specification as failing to provide proper antecedent basis for the claimed subject matter pursuant to 37 CFR 1.75(d)(1) and MPEP § 608.01(o) with respect to the subject matter of Claims 20 and 33. The objection is hereby traversed. Without prejudice and without addition of new matter, Applicants have amended the Specification at Par. 97 to include the clause:

“In some embodiments, without limitation, the current stimulator 5 and at least one stimulating electrode 7 are configured with wireless transmission circuitry so that transmission of the stimulation sequence from the current stimulator 5 to at least one

stimulating electrode 7 occurs wirelessly, and the wire 17 connecting the current stimulator 5 and stimulating electrode 7 may optionally be omitted.”.

No new matter is added. Withdrawal of the objection is respectfully requested.

**Claim Rejections – 35 U.S.C. § 101**

The Examiner rejected claims 1-23 and 39 under 35 U.S.C § 101 because in the Examiner’s view, the claimed invention is directed to non-statutory subject matter. The rejection is hereby traversed. Without prejudice or disclaimer of subject matter, Claims 1, 16, 21, and 39 have been amended consistent with the Examiner’s suggested amendments. Applicants thank the Examiner for his suggestions. Withdrawal of the rejection and allowance of Claims 1-23 and 39 are respectfully requested.

**Claim Rejections – 35 U.S.C. § 103**

The Examiner rejected claims 1-10, 15, 24, 25, 27 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Gibson, et al. (US Pub. 2005/0004627)(“Gibson”). The Examiner also rejected claims 11-13, 16-23, 26 and 29-40 under 35 U.S.C. § 103(a) as being unpatentable over Gibson (US Pub. 2005/0004627) in view of Milojevic et al. (US Pub. 2005/0033377)(“Milojevic”). The Examiner also rejected claim 14 under 35 U.S.C. § 103(a) as being unpatentable over Gibson in view of Milojevic further in view of Lesinski et al. (US Patent 6,381,336)(“Lesinski”). Due to commonality in the rejections, all Section 103(a) rejections are addressed together herein. The rejections are respectfully traversed.

It is well known that “[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).” M.P.E.P. § 2143.03. *Accord* M.P.E.P. § 706.02(j). Moreover, the mere fact that references can be combined or modified does not render the resulting combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F2d 680, 16 U.S.P.Q 2d 1430 (Fed. Cir. 1990).

MPEP Section 2143 sets forth the basic requirements for the Patent and Trademark Office to establish *prima facie* obviousness as follows: “To establish a *prima facie* case of obviousness, three

criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.”

The case law “makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for showing of the teaching or motivation to combine prior art references.” *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999); see also *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 665 (Fed.Cir. 2000) This is because “[c]ombining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.” *Dembiczak*, 175 F.3d at 999. Thus, it is established law that one “cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” *Ecolochem, Inc. v. Southern Cal. Edison Co.*, 227 F.3d 1361, 1371, 56 USPQ2d 1065 (Fed. Cir. 2000) (citing *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1780, 1783 (Fed. Cir. 1988)).

In accordance with some embodiments, without limitation, Applicants have discovered unexpectedly that when disposed in the inferior colliculus of a mammal, a stimulating electrode having a plurality of shanks with stimulation sites and differentially stimulated with electrical signals of certain characteristics achieve improved, more localized, frequency-specific activation and significantly lower thresholds of activation compared to other hearing prostheses. (See e.g. Paras. 31-34 of the Specification). Moreover, Applicants have discovered that stimulation of different locations within a given isofrequency lamina in fact elicits different, temporally distinct response patterns of significance to an improved hearing experience to those in need of hearing prostheses. (See e.g. Para. 35-38). Thus, Applicants have discovered unexpectedly that stimulation of the inferior colliculus in accordance with some embodiments having a stimulating electrode with a plurality of shanks bearing stimulation sites may achieve low-threshold, localized, and frequency-specific stimulation and that such a three-dimensional electrode may achieve high levels of speech

perception and more complicated percepts such as music and sound localization. (See e.g., Para. 44).

None of this is taught or disclosed by the cited prior art and therefore there can be no claim to a *prima facie* showing of Section 103 obviousness. In fact, the principal cited reference, Gibson, fails to teach a stimulating electrode having a plurality of shanks with stimulation sites. At most, Gibson teaches only an “electrode array” having a single “elongate member 11” having a “plurality electrodes 12 mounted thereon.” (See Gibson, Para. 82). Nowhere does Gibson (or any other cited reference) teach or disclose a stimulating electrode with a plurality of shanks bearing stimulation sites, like the stimulating electrode of some embodiments of the present invention. To emphasize the difference between the present claims and the cited art, Applicants have amended independent Claims 1, 16, 24, 29, 39, and 40, without prejudice and without disclaimer of subject matter, to further describe the claimed stimulating electrode as a “unitary” construction

Moreover, nowhere does Gibson describe any structures, or any related benefits, concerning use of such a multi-shanked electrode, as disclosed and claimed in some embodiments of the present invention. The Office Action relies on only two words – “at least” - to assert that one of ordinary skill in the art would look to Gibson as a source of obviousness under Section 103. However, Gibson is so totally devoid of any teaching or disclosure related to a multi-shanked stimulating electrode that it is only by reading the current application and applying improper hindsight that such an argument could be made. This is not permissible, and all rejections under Section 103 should be withdrawn and the claims allowed as written or amended.

The deficits of Gibson are not cured by combination with either Milojevic and/or Lesinski. Indeed, none of the references contains any teaching or disclosure of a structure or use of a stimulating electrode with multiple shanks having stimulation sites and used in the inferior colliculus. Of particular note, Milojevic contains no disclosure of the generation or transmission of any type of electrical signal to any stimulating electrode with multiple shanks disposed in the inferior colliculus of a mammal. Consequently, because none of Gibson, Milojevic, or Lesinski teaches all elements of the present claims as written or amended, there can be no *prima facie* case of

obviousness under Section 103. For at least these reasons, withdrawal of the Section 103 rejections and allowance of the claims as written and amended are respectfully requested.

**New Claims**

New Claims 41 and 42 are added to further claim allowable subject matter disclosed in the specification, claims, and drawings as filed.

### **CONCLUSION**

All rejections and objections have been addressed. In view of the above, the claims are believed to be in condition for allowance. Accordingly, reconsideration and allowance are respectfully requested and the Examiner is respectfully requested to pass this application to issue.

It is believed that any fees associated with the filing of this paper have already been identified in any transmittal accompanying this paper. However, if any additional fees are required in connection with the filing of this paper that are not identified in any accompanying transmittal, permission is given to charge Deposit Account No. 18-0013 under Order No. 65306-176 in the name of Rader, Fishman and Grauer PLLC, from which the undersigned is authorized to draw.

If the Examiner has any comments or questions, he is kindly urged to call the undersigned to facilitate prosecution.

Dated: August 11, 2009

Respectfully submitted,

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Attachment (Replacement Sheet 2)